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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/080,684	05/18/1998	THOMAS MIKUS	TH-1038	9660

7590 05/09/2005

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EXAMINER

SINGH, SUNIL

ART UNIT PAPER NUMBER

3673

DATE MAILED: 05/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/080,684

Applicant(s)

MIKUS ET AL.

Examiner

Sunil Singh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11-26 and 28-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/3/05, 2/7/05</u> | 6) <input type="checkbox"/> Other: ____ |

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DETAILED ACTION

Election/Restrictions

1. Claim 27 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Specie II (Fig. 2), there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 1/18/05.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-22, 24-26 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watson et al. in view of SPE article "Remediation of Deep Soil Contamination Using Thermal Vacuum Wells".

Watson et al. discloses removal of contaminants from soil (see col. 15 line 55 thru col. 6 line 5) comprising placing at least one perforated conduit in the soil (92,98, see col. 14 line 47), flowing/pumping (102) gas/air through the perforated conduit (see col. 15 lines 8-12, col. 15 lines 25-28, col. 15 lines 58-61) and maintaining suction/vacuum force (104) on the perforated conduit to draw contaminants into the perforated conduit. Watson et al. disclose the invention substantially as claimed. However, Watson et al. is silent about the gas/air being hot and that the suction/vacuum force being below that of the soil. SPE article "Remediation of Deep Soil Contamination

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Using Thermal Vacuum Wells” teaches it is known to use hot air/gas and to provide negative pressure (meaning pressure in the conduit being less than that in the soil) in order to facilitate decontamination of soil (see page 906). It would have been considered obvious to one of ordinary skill in the art to modify Watson et al. to use hot gas/air and negative pressure as taught by SPE article “Remediation of Deep Soil Contamination Using Thermal Vacuum Wells” in order to facilitate decontamination of soil.

With regards to claims, 14-16, 24-25, 29-30, the particular manner in which the conduits are placed in the vicinity of the contaminated soil is not considered to be a patentable distinction because it is old and well known in the art to have perforated conduits buried in a trench below uncontaminated soil

3. Claims 23 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watson et al. in view of SPE article “Remediation of Deep Soil Contamination Using Thermal Vacuum Wells” as applied to claims 18 and 26 above, and further in view of Balch (US 5228804).

Watson et al. (once modified) discloses the invention substantially as claimed.

However, the (once modified) Watson et al. is silent about including a burner. Balch teaches it is notoriously conventional to use a burner to generate hot gas/air (see abstract). It would have been considered obvious to one of ordinary skill in the art to further modify the (once modified) Watson et al. to include a burner as taught by Balch since such a modification is conventional.

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4. Claims 11-26 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watson et al. in view of Balch '804.

Watson et al. discloses removal of contaminants from soil (see col. 15 line 55 thru col. 6 line 5) comprising placing at least one perforated conduit in the soil (92,98, see col. 14 line 47), flowing/pumping (102) gas/air through the perforated conduit (see col. 15 lines 8-12, col. 15 lines 25-28, col. 15 lines 58-61) and maintaining suction/vacuum force (104) on the perforated conduit to draw contaminants into the perforated conduit. Watson et al. disclose the invention substantially as claimed. However, Watson et al. is silent about the gas/air being hot and that the suction/vacuum force being below that of the soil. Balch teaches to use hot air/gas (see col. 6 lines 30-42, col. 7 line 40) and to provide negative pressure (meaning pressure in the conduit being less than that in the soil) (see col. 7 lines 45-57) in order to facilitate decontamination of soil. It would have been considered obvious to one of ordinary skill in the art to modify Watson et al. to use hot gas/air and negative pressure as taught by Balch in order to facilitate decontamination of soil.

With regards to claims, 14-16, 24-25, 29-30, the particular manner in which the conduits are placed in the vicinity of the contaminated soil is not considered to be a patentable distinction because it is old and well known in the art to have perforated conduits buried in a trench below uncontaminated soil

Response to Arguments

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5. Applicant's arguments with respect to claims 11-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil Singh whose telephone number is (571) 272-7051. The examiner can normally be reached on Monday through Friday 10:30 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (571) 272-7049. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sunil Singh
Primary Examiner
Art Unit 3673



SUNIL SINGH
PRIMARY PATENT EXAMINER

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4/15/05